

LISTING OF THE CLAIMS

1. (Currently amended) A method of operating a sensor net, comprising:
detecting access attempts by one or several mobile devices to multiple nodes within
said sensor net;

calculating a respective probability of future access by a mobile device for each of
said multiple nodes in response to said detecting;

communicating information related to said calculated probabilities through said
sensor net; and

routing measurement data for collection to respective ones of said multiple nodes
using utilizing said calculated probabilities.

2. (Currently amended) The method of claim 1 further comprising:

receiving probabilities of future access from a mobile device by least one node of said
sensor net and communicating said received probabilities through said sensor net, wherein
said routing further [[uses]] utilizes said received probabilities to route measurement data.

3. (Original) The method of claim 1 wherein said detecting, calculating, and
communicating occur repetitively causing routing of measurement data to vary dynamically
in response to changes in access patterns associated with mobile devices.

4. (Original) The method of claim 1 wherein said routing measurement data
varies in response to the time of day when said routing is performed.

5. (Original) The method of claim 1 wherein said calculating calculates a time
window average of detected access attempts.

6. (Currently amended) The method of claim 1 wherein said communicating
calculated probabilities comprises:

receiving a first portion of said information at a first node in said sensor net;

selecting a second portion from said first portion of information using utilizing
calculated probabilities of future access; and

transmitting said second portion from said first node to a second node in said sensor
net.

7. (Currently amended) The method of claim 6 wherein said selecting removes information from said first portion using utilizing a cost function.

8. (Original) The method of claim 7 wherein said cost function calculates a path cost to a collection point.

9. (Original) The method of claim 8 wherein said cost function is a function of communication hops to a collection point.

10. (Currently amended) The method of claim 1 wherein said routing comprises: selecting a destination collection point using utilizing said communicated information.

11. (Currently amended) The method of claim 1 wherein said routing comprises: selecting multiple destination collection points using utilizing said communicated information.

12. (Original) The method of claim 11 wherein said selecting multiple destination collection points comprises:

calculating a group probability of access to at least one of said multiple destination collection points; and

comparing said calculated group probability of access to a threshold value.

13. (Currently amended) The method of claim 1 wherein said routing comprises: using utilizing a pseudo-random algorithm to distribute measurement data beyond optimal paths identified using utilizing said communicated information.

14. (Original) The method of claim 1 wherein said communicating comprises: communicating information that is indicative of a change in previously communicated information related to said probabilities of future access.

15. (Original) The method of claim 1 wherein said mobile devices are cellular devices.

16. (Currently amended) A sensor device for operation in a sensor net comprising:

means for detecting and recording attempts to access measurement data by mobile

devices;

means for calculating a probability of future access by a mobile device to said sensor device using utilizing said recorded access attempts;

means for receiving information related to probabilities of future access associated with other sensor devices within said sensor net;

means for communicating information related to probabilities of future access to other sensor devices; and

means for routing measurement data within said sensor net in response to said means for calculating and said means for receiving.

17. (Original) The sensor device of claim 16, comprising:

means for receiving probabilities of future access from a mobile device, wherein said means for routing further operates in response to said means for receiving probabilities from a mobile device.

18. (Original) The sensor device of claim 16 wherein probabilities of access are correlated to a time of day.

19. (Previously Presented) The sensor device of claim 16 wherein said means of communicating information related to probabilities of future access to other sensor devices limits communication to information associated with a subset of sensor devices within said sensor net.

20. (Original) The sensor device of claim 19 wherein said means for communicating selects said subset of sensor devices in relation to respective probabilities of access to said subset of sensor devices and a cost function.

21. (Original) The sensor device of claim 16 wherein said means for routing employs source address routing to communicate measurement data originating at said sensor device.

22. (Currently amended) The sensor device of claim 21 wherein said means for routing selects a plurality of collection points using utilizing said source address routing.

23. (Original) The sensor device of claim 22 wherein said plurality of collection points are selected by determining a probability of access to at least one of said plurality of collection points.

24. (Original) The sensor device of claim 19 wherein said means for routing includes randomization logic for directing measurement data beyond optimal paths defined by probabilities of future access to other sensor devices.

25. (Currently amended) A method of operating a sensor net comprising:
detecting access attempts by one or several mobile devices to multiple nodes within said sensor net;
determining probabilities of future access by said mobile devices to nodes of said sensor net;
distributing information related to said determined probabilities through said sensor net; and
routing measurement data ~~using~~ utilizing said distributed information related to said determined probabilities.

26. (Original) The method of claim 25 wherein said determining comprises:

calculating time window averages of access attempts by mobile devices to respective nodes of said sensor net.

27. (Original) The method of claim 25 wherein said determining comprises:
receiving information from a mobile device related to future access activity of mobile devices.

28. (Original) The method of claim 25 wherein said distributing information comprises:

receiving at a first node identification of a plurality of collection points;
selecting a subset of said plurality of collection points using a cost function related to communicating to the plurality of collection points; and
communicating information related to said determined probabilities limited to said subset to a second node.